REMARKS

A marked-up version of amended paragraph in the specification and amended claims 1-38 are included herewith in Appendix A.

It is requested that the examination and prosecution of this application proceed on the basis of the English translation of the PCT International application included herewith and these amended claims 1-38.

Respectfully submitted,

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APPENDIX A

1. A DNA sequence coding for a protein which is involved in the development of the nervous system, in particular the CNS, and is expressed in a tissue-specific and development-specific manner, wherein the DNA sequence comprises the following DNA sequences:

(a) the DNA sequence of figure 1, figure 2, figure 3, figure 4, figure 5, figure 6, figure 7 or figure 8;

(b) the DNA sequence of figure 9 or figure 10;

(c) the DNA sequence of figure 11;

(d) the DNA sequence of figure 12 or figure 13;

(e) the DNA sequence of figure 14 or figure 15;

(f) the DNA sequence of figure 16;

(g) the DNA sequence of figure 17 or 18;

(h) the DNA sequence of figure 19;

(i) a DNA sequence hybridizing with (a), (b), (c), (d), (e), (f), (g) or (h)

(j) fragments, variants, functional equivalents, derivatives or precursors of the DNA sequence of (a), (b), (c), (d), (e), (f), (g), (h) or (i); or

(k) a DNA sequence which differs from the DNA sequence of (a), (b), (c), (d), (e), (f), (g), (h), (i) or (j) due to the degeneration of the genetic code.

3. An antisense RNA, characterized in that it is complementary to the DNA sequence of claim 1 [or 2] and can reduce or inhibit the synthesis of the protein encoded by this DNA sequence.

4. A ribozyme [Ribozyme], characterized in that it is complementary to the DNA sequence of claim 1 [or 2] and can bind specifically to the RNA transcribed by this DNA sequence and can cleave it so as to reduce or inhibit the synthesis of the protein encoded by this DNA sequence.

5. An expression [Expression] vector, containing the DNA sequence selected from the group consisting of the protein according to claim 1 [or 2 or coding for] the antisense RNA according to claim 3 or the ribozyme according to claim 4.

7. An expression [Expression] vector according to claim [5 or] 6, which codes for a protein selected from the group consisting of [for the] T, T2, [or] T3 proteins or for fragments thereof in the form of a reporter fusion protein.

8. A host [Host] cell which is transformed with [the] an expression vector selected from the group consisting of the expression vector of claim 5, claim 6 and claim 7.[according to any of claims 5 to 7.]

9. A protein [Protein] which is encoded by the DNA sequence according to claim 1 [or 2] and which is involved in the development of the nervous system and is expressed in tissue-specific and development-specific manner, or fusion proteins, fragments, variants, derivatives or precursors of the protein

11. A method [Method] of producing the protein according to claim 9, which comprises culturing the host cell according to claim 8 under suitable conditions and obtaining the protein from the cell or the culture medium.

14. A method for preventing or treating diseases of the nervous system by using a member selected from the group consisting of [Use of]the DNA sequence according to claim 1 [or 2], the antisense RNA according to claim 3, the ribozyme according to claim 4, the expression vector according to any of claims 5 to 7, the protein according to claim 9 and [or] the antibody or the fragment thereof according to claim 12 or 13 for preventing or treating diseases of the nervous system, in particular of the CNS.

15. The method [Use] according to claim 14, wherein the disease of the nervous system is a tumoral disease of the CNS.

16. The method [Use] according to claim 14, wherein the treatment of diseases of the nervous system are the promotion of the neuronal regeneration in the case of injuries of the nervous system and degenerative diseases of the nervous system.

17. The method [Use] according to claim 14, wherein the treatment of diseases of the nervous system are the regeneration of the neuronal linkages and the regeneration of the innate and acquired malfunctions of the nervous system.

18. The method [Use] according to claim 15 for inhibiting the growth and spreading of tumor cells.

19. Diagnostic method for detecting a disturbed expression of the protein according to claim 9 or for detecting a changed form of this protein, in which a sample is contacted with a member selected from the group consisting of the DNA sequence according to claim 1. the DNA sequence according to claim 2, [or 2 or] the antibody or the fragment thereof according to claim 12, and the antibody or the fragment thereof of claim [or] 13 and then it is determined directly or indirectly whether the concentration of the protein and/or its amino acid sequence differs from a protein obtained from a healthy patient.

20. Diagnostic kit for carrying out the method according to claim 19, which contains at least one member selected from the group consisting of the DNA sequence according to claim 1, the DNA sequence according to claim [or] 2, [and/or] the antibody or the fragment thereof according to claim 12, and the antibody or the fragment thereof according to claim [or] 13.

24. Non-human mammal according to claim 22 [or 23], wherein the heterologous sequence is the selection marker sequence.

26. A method of producing a non-human mammal selected from the group consisting of the non-human mammal according to claim 21, claim 22, claim 23, claim 24 and claim 25,[to any of claims 21 to 25], characterized by the steps of:

(a) producing a DNA fragment, in particular a vector, containing a changed T, T2 or G3 gene, the T, T2 or T3 gene having been modified by inserting a heterologous sequence, in particular a selectable marker;

(b) preparing embryonal stem cells from a non-human mammal (preferably a mouse);

(c) transforming the embryonal stem cells from step (b) with the DNA fragment from step (a), the T gene in the embryonal stem cells being changed by homologous recombination with the DNA fragment from (a)

(d) culturing the cells from step (c),

(e) selecting the cultured cells from step (d) for the presence of the heterologous sequence, in particular the selectable marker,

(f) producing chimeric non-human mammals from the cells of step (e) by injecting these cells into mammalian blastocysts (preferably mouse blastocysts), transferring the blastocysts to pseudo-pregnant female mammals (preferably mouse) and analyzing the resulting offspring for a change of the T, T2 or T3 gene.

28. A method for the analysis of the function of the T gene family by using a member selected from the group consisting of the [Use of the] non-human mammal

according to [any of claims] claim 21, claim 22, claim 23, claim 24, claim [to] 25[or] the transgenic cell of claim 27 or the transgenic tissue according to claim 27. [for the analysis of the function of the T gene family.]

29. A method for identifying inhibitors and enhancers of the T gene family by using [Use of] the non-human mammal according to claim 21, claim 22, claim 23, claim 24, claim 25, [to any of claims 21 to 25 or] the transgenic cell according to claim 27 or the transgenic tissue according to claim 27. [for identifying inhibitors and enhancers of the T gene family.]

30. Vertebrate gene and functional equivalent, derivative or a bioprecursor thereof, which code for a protein having a statistically significant amino acid sequence homology to the T gene, T2 gene or T3 gene according to any of the following figures selected from the group consisting of: figure 1, figure 9, figure 11, figure 12, figure 13, figure 14, figure 15, figure 16, figure 17, figure 18 or figure 19.

37. The method according to claim 35 [or 36], wherein the modified transcription with reporter molecules, preferably the occurrence of certain mRNAs or the EGEP protein, is detected.